Análisis espacial con

GeoPandas

SCI PY
LATIN AMERICA
SALTA 2022

Gabriel De Luca

Dependencias

GeoPandas

Shapely

Fiona

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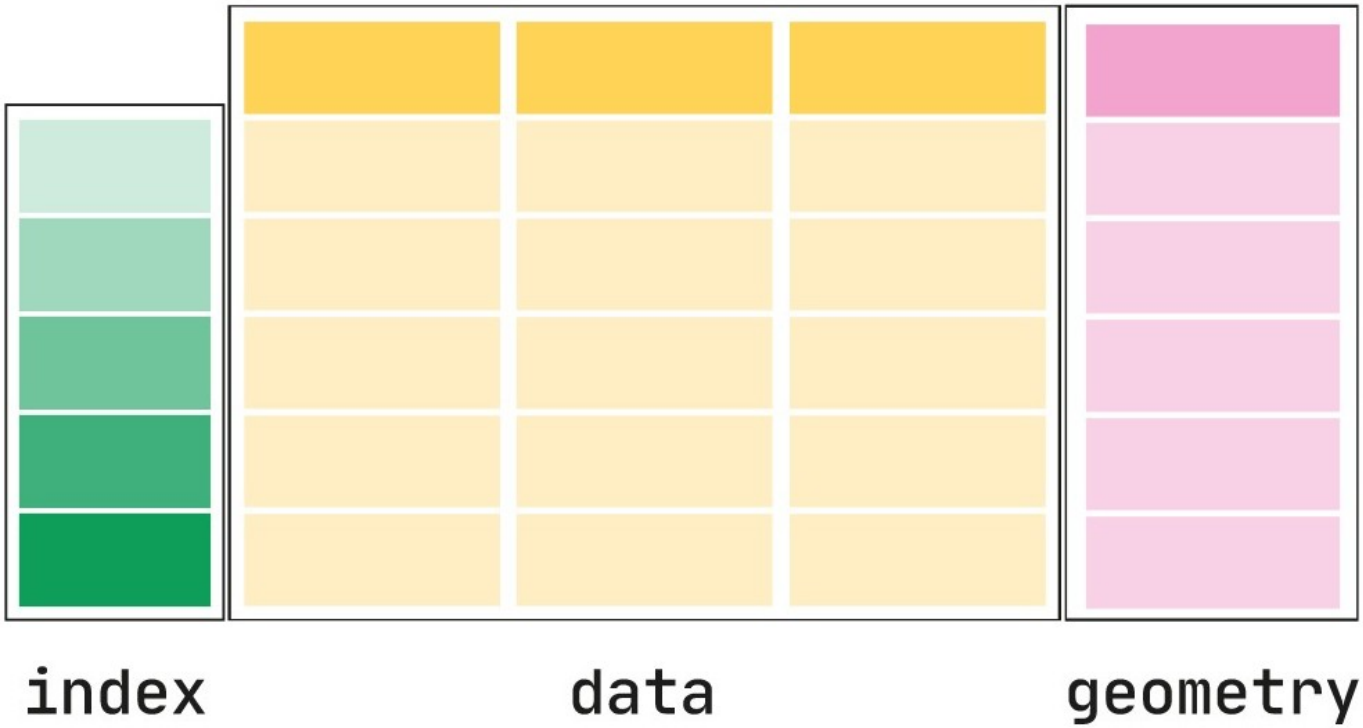
Componente espacial



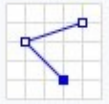
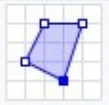
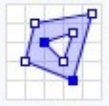
Modelo de datos

Simple Feature Access

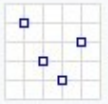
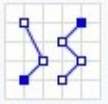
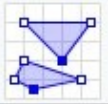
ISO International Organization for Standardization

Open Geospatial Consortium

Geometrías primitivas (2D)

Type	Ejemplos	
Punto		`POINT (30 10)`
Línea		`LINESTRING (30 10, 10 30, 40 40)`
Polígono		`POLYGON ((30 10, 40 40, 20 40, 10 20, 30 10))`
		`POLYGON ((35 10, 45 45, 15 40, 10 20, 35 10), (20 30, 35 35, 30 20, 20 30))`

Geometrías multiparte (2D)

Type	Ejemplos	
Multipunto		`MULTIPOINT ((10 40), (40 30), (20 20), (30 10))`
		`MULTIPOINT (10 40, 40 30, 20 20, 30 10)`
Multilínea		`MULTILINESTRING ((10 10, 20 20, 10 40), (40 40, 30 30, 40 20, 30 10))`
Multipolígono		`MULTIPOLYGON (((30 20, 45 40, 10 40, 30 20)), ((15 5, 40 10, 10 20, 5 10, 15 5)))`
		`MULTIPOLYGON (((40 40, 20 45, 45 30, 40 40)), ((20 35, 10 30, 10 10, 30 5, 45 20, 20 35), (30 20, 20 15, 20 25, 30 20)))`

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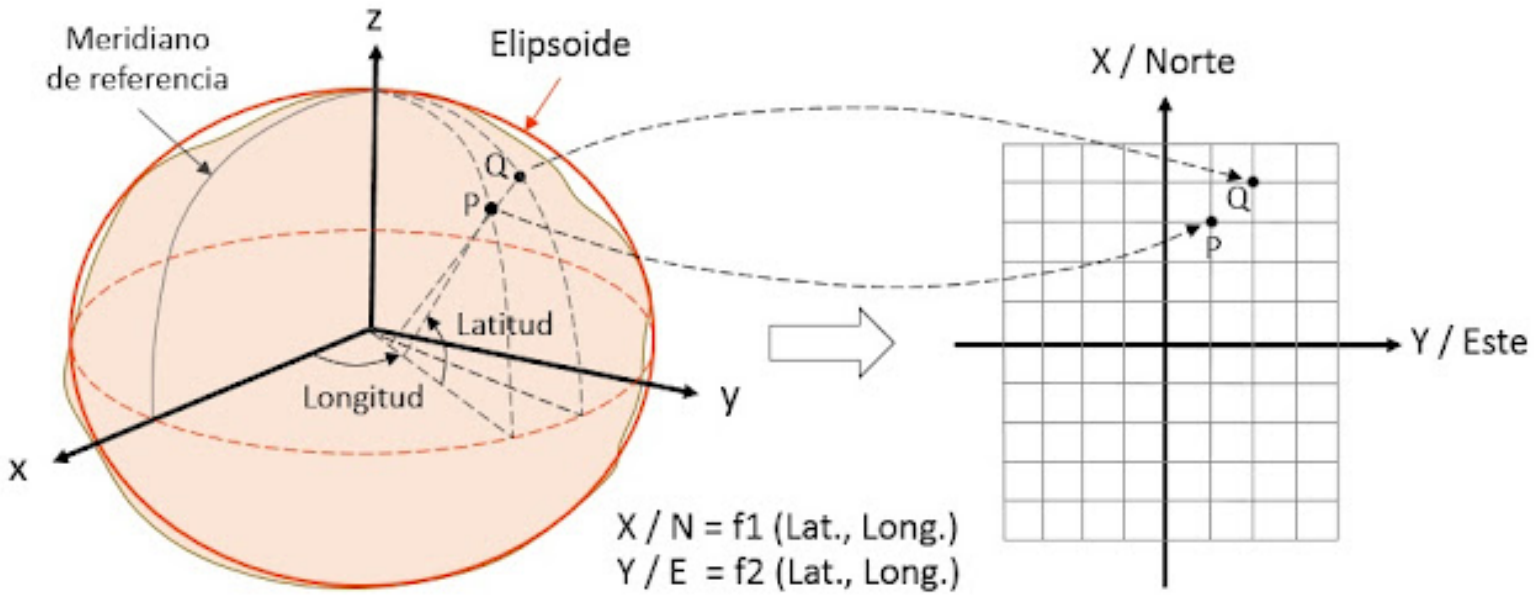
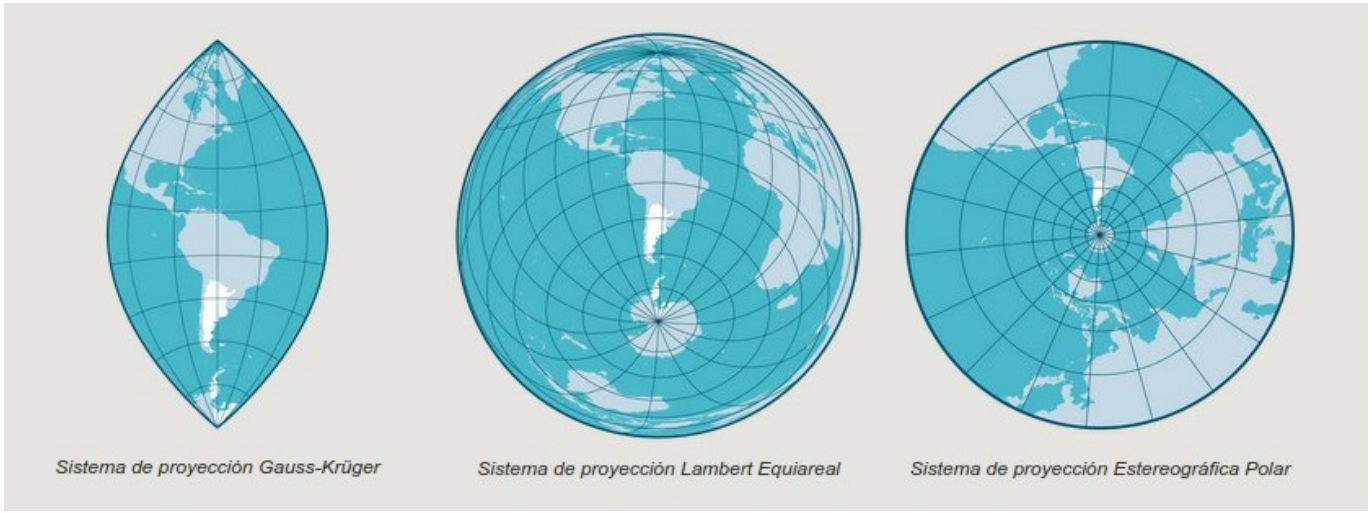
Georreferenciación y Proyección Cartográfica





EPSG
GEODETIC PARAMETER DATASET
Managed by IOGP's Geomatics Committee

IGN
Instituto Geográfico Nacional
REPÚBLICA ARGENTINA

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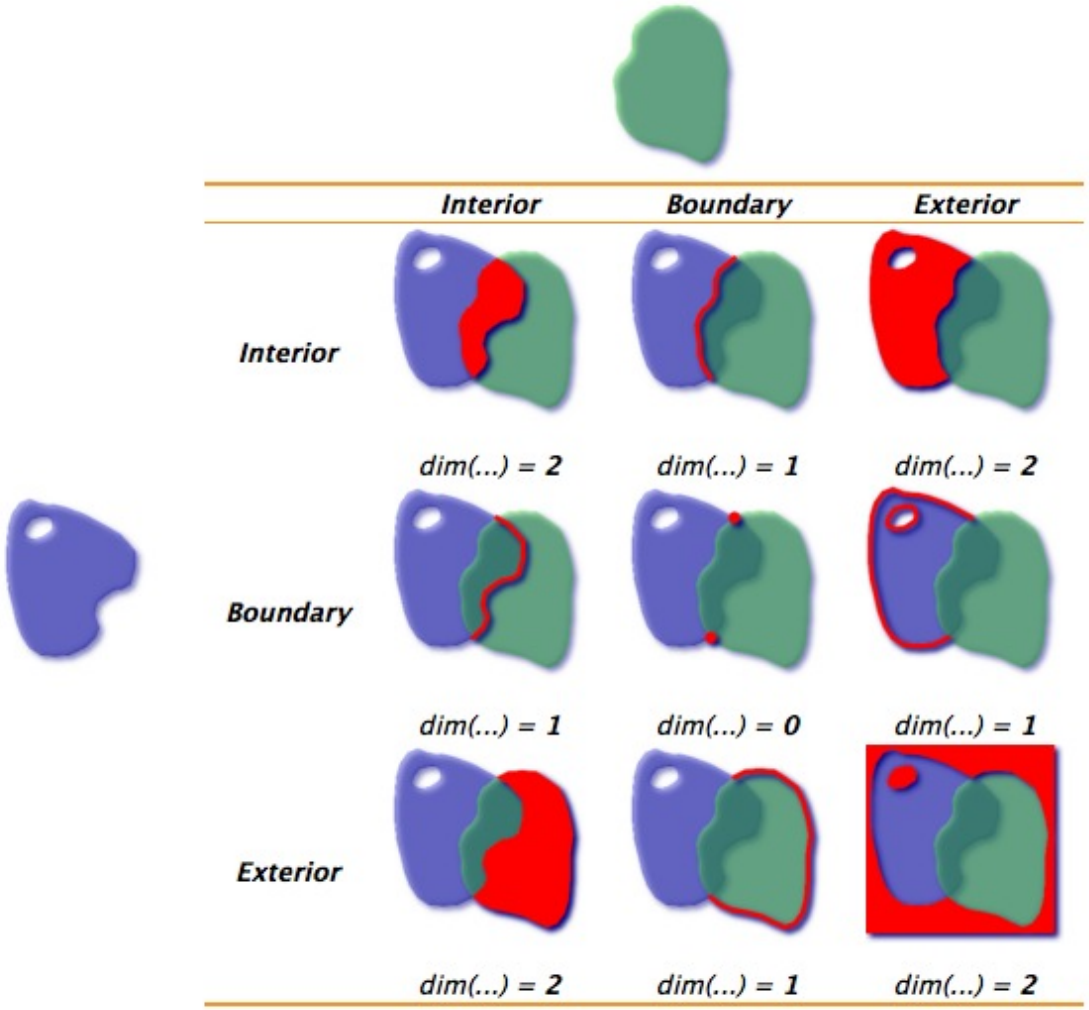
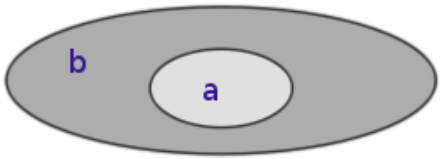
Modelo de Intersección (DE-9IM)

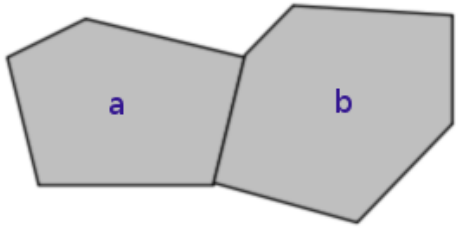


Predicados espaciales

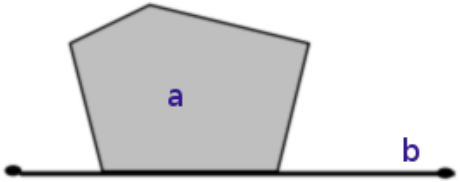
Within(a,b)



Touches(a,b)



Touches(a,b)



Crosses(a,b)

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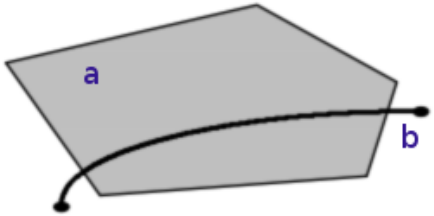
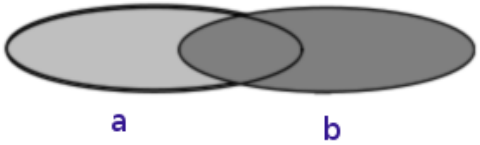
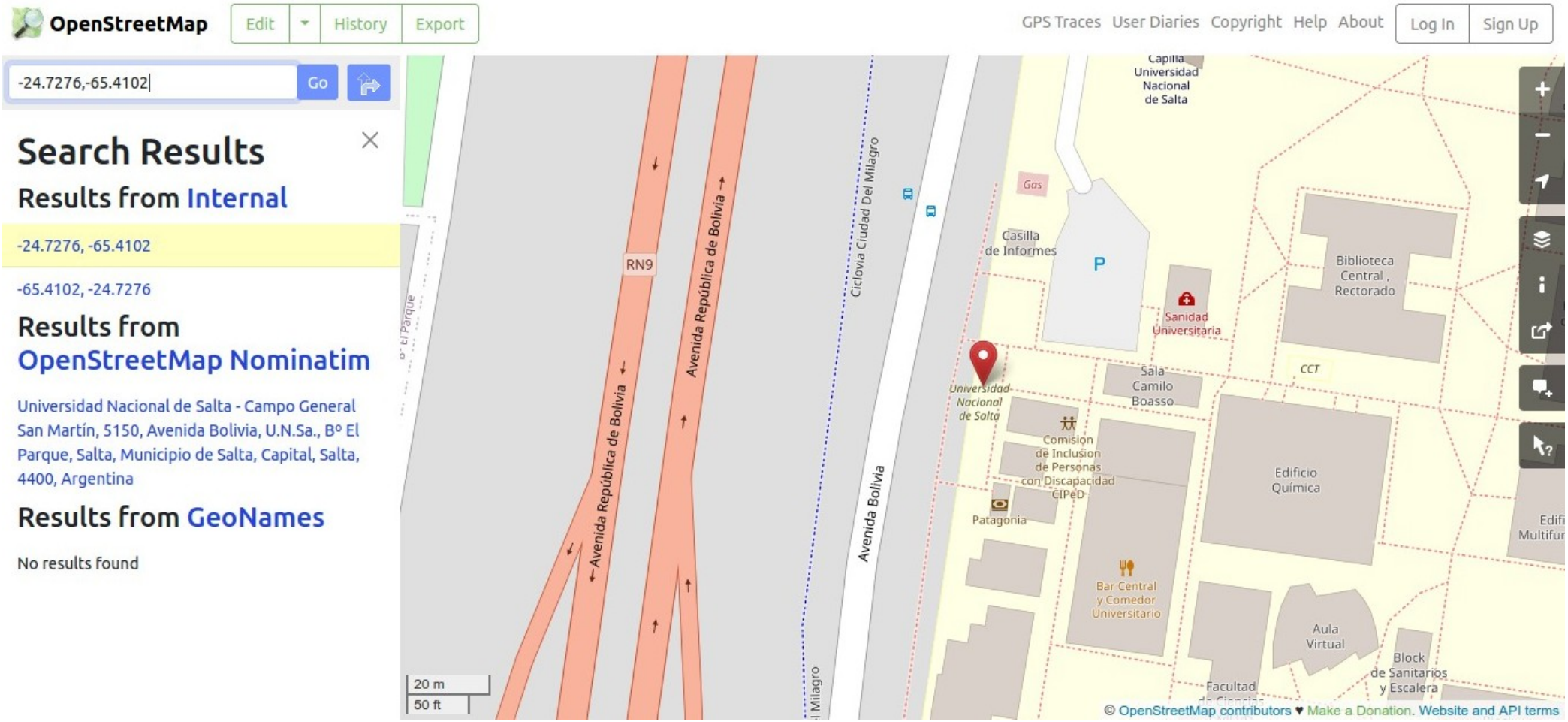


Overlaps(a,b)



Geocodificación



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Gracias!

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